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From: Ham-Policy Mailing List and Newsgroup <ham-policy@ucsd.edu>  
Errors-To: Ham-Policy-Errors@UCSD.Edu  
Reply-To: Ham-Policy@UCSD.Edu  
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Subject: Ham-Policy Digest V93 #188  
To: Ham-Policy

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Today's Topics:

                    Blind VEs  
            NQ0I Loses Big PRB-1 Antenna Case

Send Replies or notes for publication to: <Ham-Policy@UCSD.Edu>  
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Problems you can't solve otherwise to brian@ucsd.edu.

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We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Sun, 13 Jun 1993 19:24:27 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!math.ohio-  
state.edu!cs.utexas.edu!asuvax!ennews!enuxva.eas.asu.edu!shandrow@network.UCSD.EDU  
Subject: Blind VEs  
To: ham-policy@ucsd.edu

Ok Bill. Like I wrote earlier, are we to be accused of incompetence and  
found guilty without a trial? We have been found guilty till proven  
innocent. This is contrary to the very Constitution. What do you say to  
this?

We should not have to prove our innocence, the FCC must prove our guilt.  
Anything else is against the very principles of the U.S. government and  
really must be evaluated in light of this.

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Date: Sun, 13 Jun 93 18:55:08 GMT  
From: usc!howland.reston.ans.net!agate!headwall.Stanford.EDU!nntp.Stanford.EDU!  
umunhum!paulf@network.UCSD.EDU  
Subject: NQ0I Loses Big PRB-1 Antenna Case  
To: ham-policy@ucsd.edu

In article <25439@drutx.ATT.COM> n2ic@druwa.ATT.COM (LondonSM) writes:  
>I have tried to refrain from getting personally involved in this, but  
>N9FZX's idiotic remarks leaves me no choice.....

Well, there was certainly no need to personally attack me, and not my remarks. Unless, of course, you'd like to be treated similarly.

>The very issue of NQ0I's public service activities came up in several  
>public hearings. The neighbors arguments were along the lines of  
> [...]

If you don't have the support of at least some of your neighbors, you're pretty sunk in \*any\* permit or variance hearing. Especially since, as the appellate court pointed out, the Federal Courts are to defer to local boards for factual findings.

>As any ham who has been active on the HF bands knows, for a horizontally  
>polarized antenna, the "takeoff" angle of  
>your main lobe is inversely proportional to the height of the antenna. At  
>a height of 35 feet, on 20 meters, most of your signal is at too high of  
>an angle to effectively work much DX. Whether you like it or not, DXing  
>and contesting are "legitimate amateur [radio] interests", in the context  
>of PRB-1.

This argument has already been rejected in precedent, because it leads to the conclusion that any height limitation violates "legitimate amateur interests".

It also fails technically, because, as you are aware, the Angle of Intercept versus Probability of Intercept is nonlinear. For example, at 14 MHz, the 10th percentile is about 14 degrees, the 90th percentile is 9 degrees, and the 99th percentile is about 5 degrees. Thus doubling your tower size doesn't necessarily double the POI. In addition, in order to make any use of such a system, your horizon angle must be lower than that.

Finally, you've completely omitted the possibility of vertical polarization.

>First of all, see my previous point. On 20 meters, a 35 foot high rhombic  
>has the same high radiation angle as a 35 foot high yagi.

The rhombic compensates for this somewhat with better gain in the vertical plane.

> Secondly,  
>rhombics are fine for point-to-point communications. Unless you have  
>many rhombics, you're not going to be able to communicate in ALL directions.

However, the population density distribution of amateurs is nonuniform. With a single rhombic, you can cover most of Europe on the front lobe, and Japan off the back.

>Thirdly, how big do you think 1.28 acres is ? About 225 feet by 225 feet.  
>You'll have one hell of a time stringing up multiple, non-interacting HF  
>rhombics on that size of property ! By the way, Boulder County also only  
>allows ONE 35 foot tower per lot. How do you propose supporting all those  
>rhombics, with the 10 foot high trees that NQOI planted ? Even if the trees  
>were high enough, what kind of wire do you propose using that won't be  
>breaking every time we have 100 MPH winds and the trees sway ?

Vertical rhombics only require a single support, and you can build several noninterfering vertical rhombics to cover the relevant directions.

Mechanically, it's much easier to put up a rhombic that will withstand high winds, than several monoband beams atop a 125 ft tower. The mechanical details are covered in Harper's monograph, as well as empirically shown at Pt. Reyes and other coast stations.

>You have obviously never read PRB-1 or my posting of the Federal Appeals  
>Court decision ! PRB-1 says NOTHING about balancing. It DOES say  
>"reasonably accommodate legitimate amateur interests". Even the  
>Federal Appeals Court said that "balancing" was wrong ! Here is a repeat  
>of the Federal Appeals Court text (since you didn't read it the first time  
>I posted it !).

>

>"The Board in drafting its resolution mischaracterized its responsibility  
>to reasonably accommodate as a balancing test. ... We believe the  
>balancing approach underrepresents the FCC's goals as it specifically  
>selected the "reasonably accommodate" language."

As a matter of fact, this is the third time I've read that paragraph. You've taken it far out of context here, especially with the ellipses. The point that the appellate court was making was that the board's written decision refers to the balance between aesthetic concerns and those of a single amateur station, while the precedential interpretation of PRB-1 requires a balance between aesthetics and \*Federal Interests\*. The mistake here is in assuming that legal decisions are made solely on the written law; the concept of "balance" has arisen out of other interpretations on other cases, and the court must consider, stare decisis, the case law.

>Who the hell is "us" ? If YOU don't like high towers, fine. But don't try  
>to speak for the rest of "us" ! I thought that kind of mentality died  
>with the demise of the USSR !

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Date: (null)

From: (null)

Unfortunately, this ruling does affect \*all\* of us, because of the precedent, and the effect of stare decisis on future cases. The vast majority of cases where hams have lost have been where hams were attempting to build optimal, and not operational antenna systems. It is also likely that many communities will take the PRB-1 losses as an invitation to regulate antennas out of existence, resulting in more litigation and expense for many more amateurs.

What is needed to combat this precedence trend is some sort of standard process to determine at what height the point of diminishing returns sets in, given terrain, soil quality and other factors. This doesn't mean one height for us all; rather, it means that hams who need more height can get it. The process itself is defensible, and as a standard, once established in precedent, would greatly strengthen PRB-1.

The other alternative is to develop antenna systems which don't require height for optimal performance. Most of the commercial development in antennas has tended towards horizontal beams -- yagi optimization, stacked beams, etc. Vertical array development, in contrast, has been the subject of considerable research, but little commercial development. For example, the work here at Stanford in OTH radar started with large horizontal log periodics on high towers, but evolved into phased, ground mounted vertical arrays. You can get a surprising amount of gain out of a four element square array, with a better TOA than most beams, no moving parts, and much better wind survivability. So, alternatives do exist.

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--Paul Flaherty, N9FZX | "The National Anthem has become The Whine."

->paulf@Stanford.EDU | -- Charles Sykes, \_A Nation of Victims\_

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Date: Sun, 13 Jun 1993 19:15:55 GMT

From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!gatech!asuvax!ennews!enuxva.eas.asu.edu!shandrow@network.UCSD.EDU

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References <1993Jun11.153943.3445@ennews.eas.asu.edu>,

<1993Jun11.202613.29623@ennews.eas.asu.edu>,

<1993Jun12.035024.157905@locus.com>drow

Subject : Re: Blind VE's

Dana:

I'm sorry. You are trying to misguide the entire issue again.

I said I was sorry for the duplication and it really wasn't done deliberately.

Can you honestly say that you have done nothing wrong on this network???

I bet I could find something hat you have done.  
So, don't try to count the incident as militancy. After all, anyone making the arguments against us being allowed to be VE's are considered to be militant and ridiculous in my view of things. So, yours isn't the only viewpoint out there!! Sorry to burst your bubble.  
[flames extinguished...]  
73/have a fine weekend

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Date: 13 Jun 93 15:58:30 GMT  
From: swrinde!gatech!pitt.edu!dsinc!gvls1!hpwisf1.han.paramax.com!  
raichel@network.UCSD.EDU  
To: ham-policy@ucsd.edu

References <cole.186.739750617@soldev.tti.com>,  
<1993Jun11.154230.12536@leland.Stanford.EDU>, <1vadaJINNg4e@crcnis1.unl.edu>  
Subject : Re: NQ0I Loses Big PRB-1 Antenna Case

re: Restrictive covenants - telling what you can an cannot do with your property and the effect on amateur radio.

I think that it is worst in Maryland. ALL new communities with more than a certain number of homes are REQUIRED BY LAW to be setup with a community association by the builder. The builder usually submits a boiler plate set of covenants that usually includes, no antennas. This means that it is almost impossable to buy a new home, or one less than 10 years old that does not have restrictive covenats. Forget about talking to the home sales people about buying a home without the covenants, they treat it as a FEATURE! They would rather sell the house to someone else, than discuss any changes.

The only hope is that some community associations do not enforce the covenants. This means that in some communities, if you just do it, you MIGHT get away with it. But this is difficult to determine when the house is purchased.

Some examples of some of the more absurd covenants some coworkers say they have on thier homes:

- No cars parked in driveway - ALL cars MUST be in garage, and door closed.
- No lawn decorations - flag poles, lawn jockies, bird baths...
- No rust stains on driveways.
- No pickup trucks parked outside - must be in garage - if you have one.
- Limitations on what types of plants and trees that can be planted.

My personal opinon on the subject is that if I wanted someone to tell me what I can or can not do with my property, I would RENT! The

right to do what I want with my property is the main reason I see for owning a house.

These restrictions on antennas, along with laws that require community associations, make it very difficult to do VHF and UHF work in amateur radio. I see a dim future for amateur radio if these restrictions become more wide spread. Atic antennas may work for HF, but they are poor for all but local work on VHF and UHF, and forget microwave work. There is no comparison in performance from my atic discone, and one on the roof. Signals that were S9 on the roof antenna, were almost unreadable on the atic discone. Serious VHF and UHF work requires tall towers to at least clear all the ground clutter trees, and telephone poles, etc.

I hope that in the future, these antenna restrictions can be reduced. The only hope that I see for reducing these limitations is to get more people interested in having antennas. Direct Broadcasting Satellite has the potential of doing this. When the average person runs down to Kmart, and buys a 2 foot satellite dish, and installs it, and is told to take it down, he would be upset. If enough people get upset, there might be change from NO antennas, to allowing SMALL antennas, etc. This is a far cry from 125' towers, but at least it would be a step in the right direction.

Thanks  
alan

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Name: Alan Raichel                      If you think the answer is simple,  
Call: N3IKI                              then you probabaly don't understand  
Inet: raichel@han.paramax.com              the question.  
ICBM: 39'10' N 76'30' W                      #include <std\_disclaimer.h>

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End of Ham-Policy Digest V93 #188  
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